INTRODUCTION

The mission of the U.S. Environmental Protection Agency (U.S. EPA) is to protect the environment and public health. In the last 3 years, renewed commitment to protecting children's health has resulted in important policy initiatives at the U.S. EPA and throughout the federal government. On 15–16 September 1997 the U.S. EPA convened a conference on Preventable Causes of Cancer in Children. The goals of this conference were to *a*) bring together scientists, government officials, politicians, advocacy organizations, and other members of the public for a dialogue on children's cancer; *b*) hear from leading researchers about the state of knowledge and recent advances in understanding causes of children's cancer; and *c*) formulate a research agenda for prevention of children's cancer in the next decade.

This issue of *Environmental Health Perspectives Supplements* contains five scientific reports that were presented at the conference. Additionally, it summarizes a research agenda formulated by participants. This agenda for research is designed specifically to address gaps in current knowledge of the preventable causes of pediatric cancer.

Underlying much of the concern about children's cancer among the public and the scientific community are the recent secular trends in cancer incidence rates. These trend data, which were presented at the conference by Dr. Leslie Robison (University of Minnesota) are derived from the Surveillance, Epidemiology, and End Results (SEER) Program at the National Cancer Institute. Dr. Robison focused on the substantial, steady, and continuing decline in childhood cancer mortality rates in the last two decades and the concomitant increase in reported incidence of certain childhood tumors. Rising incidence of infant cancer in the decade between 1980 and 1990 are the subject of a recent report [Kenney LB et al. Increased cancer in infants in the U.S.: 1980-1990. Cancer 82:1396–1400 (1998)].

Dr. Aaron Blair presented a review of epidemiologic associations between childhood cancers and certain parental occupational exposures. Dr. Sheila Zahm presented data linking risk of childhood cancer with pesticide exposures. Dr. Susan Preston-Martin presented results of an international collaborative study demonstrating that children of mothers who use prenatal vitamins during pregnancy have a decreased risk of childhood brain cancer. Although the epidemiologic associations presented at the conference are intriguing and may stimulate more definitive research, they do not clearly identify cause–effect relationships for childhood cancers. In previous reports childhood exposure to ionizing radiation and radioactive iodine have been definitively linked to neoplasms. Well-characterized case reports strongly suggest an etiologic connection between benzene and butadiene exposure and childhood cancer. Aside from these few exposures we cannot currently link particular environmental exposures to childhood cancer.

Dr. Seymour Grufferman discussed several key methodologic issues pertaining to childhood cancer including the vexing problems inherent in investigating community cancer clusters.

Dr. Lynn Goldman, an assistant administrator of the U.S. EPA and a leader in agency efforts to enhance protection of children from environmental hazards, discussed the breadth and consequences of gaps in the data that the government currently uses to regulate chemicals in the environment.

The conference highlighted the many putative connections between environmental exposures and childhood cancer. The need for further research and epidemiologic surveillance is urgent if we are to move from these suggestive findings closer to preventing future cases of childhood cancer.

Minutes of the U.S. EPA Conference on Preventable Causes of Cancer in Children, in addition to information about the U.S. EPA's Office of Children's Health Protection, is available on our web site at *http://www.epa/children.*

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